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Academic Career

Positions

- 2016 – present Assistant Professor (*status-only*)
Department of Psychology, University of Toronto
- 2015 – present Scientist
Rotman Research Institute, Baycrest
- 2009 – 2015 Postdoctoral Fellow, *Mentor: Dr. Jennifer Ryan*
Rotman Research Institute, Baycrest
- 2001 – 2004 Lab Manager, *Mentor: Dr. Karen F. Berman*
National Institutes of Mental Health, NIH

Education

- 2004-2009 Ph.D. in Psychology, *Mentor: Dr. Anthony D. Wagner*
Stanford University
- 1997-2001 B.S. (Hons) in Psychology, *Mentor: Dr. Lisa Eyler*
University of California, San Diego

Research funding

- 2019 2019 University College London–University of Toronto Call for Joint Research Projects and Exchange Activities, “MRI angiography of the hippocampus at 3 and 7 tesla.” (role: co-principal investigator). *University of Toronto & University College London*, (\$CAD 22,500).
- 2019 Canadian Institutes of Health Research (CIHR) Project Grant, “Evaluating eye-movement and brain imaging indicators that predict dementia in healthy older adults.” (role: Principal investigator), *CIHR*, (\$CAD 546,975).
- 2018 Alzheimer Society Research Program New Investigator Grant, "Characterizing brain changes that predict the development of dementia in older adults." (role: Principal investigator), Joint funding from the *Alzheimer Society of Canada*, (\$CAD 216,640).
- 2017 Stimulus grant, “Characterizing structural and functional brain changes that correlate with cognitive decline” at the University of Toronto’s Neuroimaging Facility, (role: Principal Investigator), *University of Toronto, Psychology Department*, (\$CAD 10,000, *declined*)
- 2017 Stimulus grant, “Exploring the neural mechanisms of reward-based retrospective memory enhancement in humans” at the University of Toronto’s Neuroimaging Facility, role: Co-Principal Investigator, *University of Toronto, Psychology Department*, (\$CAD 10,000, *declined*)
- 2017 Canadian Institutes of Health Research (CIHR) Project Grant, “Hippocampal-neocortical interactions and the precision of human memory in aging.” (role: co-applicant, principal investigator: Bradley Buchsbaum), *CIHR*, (\$CAD 315,378).
- 2017 Natural Sciences and Engineering Research Council of Canada (NSERC) Discovery Award, “Beyond the hippocampus: contributions of thalamic subregions to memory” (role: Primary Investigator), *NSERC*, (\$CAD 115,000)
- 2016 Working groups for harmonization and alignment in brain imaging methods for neurodegeneration (role: working group lead coordinator), *EU Joint Programme – Neurodegenerative Disease Research* (€ 50,000)

- 2016 Canadian Institutes of Health Research (CIHR) Project Grant, "Individual differences in autobiographical memory: cognitive, behavioural, and neural correlates and their relationship to aging" (role: co-applicant; principal investigator: Brian Levine), *CIHR*, (\$CAD 760,680).
- 2015 Mynne & Harold Soupcoff Fellowship (\$CAD 4,248)
- 2014 Early Phase Clinical Trials 2014: Neurodegenerative Diseases of Aging (role: co-applicant; Principal Applicant: Nathan Hermann), *Weston Brain Institute*, (\$CAD 1,499,998; *declined*)
- 2011 Jack and Rita Catherall Travel and Research Fund, *Baycrest*, (\$CAD 750)
- 2009 Jack and Rita Catherall Travel and Research Fund, *Baycrest*, (\$CAD 500)
- 2005 Graduate Fellowship, *National Science Foundation*, (\$USD 122,500)

Awards

- 2014 Laird Cermak Postdoctoral Travel Award, *Memory Disorders Research Society*, (\$CAD 500)
- 2013 Early Researcher Award, *Ontario Research Coalition of Research Institutes, Centres on Health and Aging*, (\$CAD 2,200)
- 2007 Undergraduate Research Award (mentor to award recipient) *Stanford University*, (\$USD 4000)
- 2001 Outstanding Undergraduate Research Award, *University of California, San Diego*
- 2001 Honors Program in Psychology Distinction, *University of California, San Diego*

Refereed papers

Published manuscripts

1. **Olsen RK**, Carr VA, Daugherty AM, La Joie R, Amaral RSC, Amunts K, Augustinack JC, Bakker A, Berron D, Boccardi M, Bocchetta M, Burggren A, Chakravarty MM, Chetalat G, de Flores R, DeKraaker J, Ding S-L, Geerlings MI, Huang Y, Insausti R, Johnson EG, Kanel P, Kedo O, Kennedy KM, Keresztes A, Lee JK, Mueller SG, Mulligan EM, Ofen N, Palombo DJ, Pasquini L, Pluta J, Raz N, Rodrigue KM, Schlichting ML, Shing Y, Stark CEL, Steve TA, Suthana NA, Wang L, Werkle-Bergner M, Yushkevich PA, Wisse LEM. on behalf of the Hippocampal Subfields Group (2019). Progress update from the Hippocampal Subfields Group. *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring*. 13: 439-449.
2. Robin J & **Olsen RK**. (2019). Scenes facilitate associative memory and integration. *Learning & Memory*. 26: 252-261.
3. Yeung L-K, **Olsen RK**, Hong B, Mihajlovic V, D'Angelo M, Kacollja A, Ryan JD, Barense MD. (in press) Object-in-Place Memory Predicted by Anterolateral Entorhinal Cortex and Parahippocampal Cortex Volume in Older Adults. *Journal of Cognitive Neuroscience*. 31: 711-729.
4. Rondina R II, **Olsen RK**, Li L, Meltzer JA, Ryan JD. (2019). Age-related changes to oscillatory dynamics during maintenance and retrieval in a relational memory task. *PlosOne*. 14: e0211851.
5. Robin J, Rai Y, Valli M, **Olsen RK**. (2019). Category specificity in the medial temporal lobe: a systematic review. *Hippocampus*. 29: 313-339.
6. Liu ZX, Shen K, **Olsen RK**, Ryan JD (2018) Age-related changes in the relationship between visual exploration and hippocampal activity. *Neuropsychologia*. 119: 81-91.
7. Wynn JS, **Olsen RK**, Binns MA, Buchsbaum BR, Ryan JD. (2018). Fixation reinstatement supports visuospatial memory in older adults. *Journal of Experimental Psychology: Human Perception and Performance*. 44: 1119-1127.

8. Palombo DJ, Bacopulos A, Amaral RSC, **Olsen RK**, Todd RM, Anderson AK, Levine B. (2018). Episodic autobiographical memory is associated with variation in the size of hippocampal subregions. *Hippocampus*. 28: 69-75.
9. **Olsen RK***, Yeung L-K*, Noly-Gandon A, D'Angelo MC, Kacollja A, Smith VS, Ryan JD, Barense, MD. (2017). Human anterolateral entorhinal cortex volumes are associated with cognitive decline in aging prior to clinical diagnosis. *Neurobiology of Aging*. 57: 195-205. * equal contribution
10. Yeung L-K, **Olsen RK**, Bild-Enkin H, D'Angelo MC, Kacollja A, McQuiggan D, Keshabyan A, Ryan, JD, Barense, MD. (2017). Anterolateral entorhinal cortex volume predicted by altered intra-item configural processing. *Journal of Neuroscience*. 37: 5527-5538.
11. Liu ZX, Shen K, **Olsen RK**, Ryan JD. (2017) Visual sampling predicts hippocampal activity. *The Journal of Neuroscience*, 37: 599-609.
12. Wisse LEM, Daugherty AM, **Olsen RK**, Berron D, Carr VA, Stark CEL, Amaral RSC, Amunts K, Augustinack JC, Bender AR, Bernstein JD, Boccardi M, Burggren A, Chakravarty MM, Chupin M, Ekstrom A, de Flores R, Insausti R, Kanel P, Kedo O, Kennedy KM, Kerchner GA, LaRocque K, Liu X, Maass A, Malykhin N, Mueller SG, Ofen N, Palombo DJ, Parekh MB, Pluta JB, Pruessner JC, Raz N, Rodrigue KM, Schoemaker D, Shafer AT, Steve TA, Suthana N, Wang L, Winterburn JL, Yassa MA, Yushkevich PA, La Joie R. (2017). A harmonized segmentation protocol for hippocampal and parahippocampal subregions: why do we need one and what are the key goals? *Hippocampus*. 27: 3-11
13. **Olsen RK**, Sebanayagam V, Lee Y, Moscovitch M, Grady CL, Rosenbaum R, Ryan JD. (2016). The relationship between eye movement repetition effects and recognition memory: evidence from amnesia and aging. *Cortex*. 85: 182-193.
14. Rabin JS, **Olsen RK**, Gilboa A, Buchsbaum BR, Rosenbaum RS. (2016) Using fMRI to understand event construction in developmental amnesia. *Neuropsychologia*. 90: 261-273.
15. Rondina R, **Olsen RK**, McQuiggan D, Fatima Z, Li L, Oziel E, Meltzer J, Ryan JD. (2015). Age-related changes to oscillatory dynamics in hippocampal and neocortical networks. *Neurobiology of Learning and Memory*. 134: 15-30.
16. **Olsen RK**, Lee Y, Kube J, Rosenbaum RS, Grady CL, Moscovitch, M, Ryan JD. (2015). The role of relational binding in item memory: evidence from face recognition in a case of developmental amnesia. *The Journal of Neuroscience*. 35: 5342-50.
17. **Olsen RK***, Pangelinan, MM*, Bogulski C, Chakravarty MM, Luk G, Grady C, Bialystock E. (2015). The effect of lifelong bilingualism on regional grey and white matter volume. *Brain Research*. 1612: 128-139. * equal contribution
18. Yushkevich PA, Amaral RSC, Augustinack JC, Bender AR, Bernstein JD, Boccardi M, Bocchetta M, Burggren AC, Carr VA, Chakravarty MM, Chételat G, Daugherty AM, Davachi L, Ding S-L, Ekstrom A, Geerlings MI, Hassan A, Huang Y, Iglesias JE, La Joie R, Kerchner GA, LaRocque KF, Libby LA, Malykhin N, Mueller SG, **Olsen RK**, Palombo DJ, Parekh MB, Pluta JB, Preston AR, Pruessner JC, Ranganath C, Raz N, Schlichting ML, Schoemaker D, Singh S, Stark CEL, Suthana N, Tompariy A, Turowski MM, Van Leemput K, Wagner AD, Wang L, Winterburn JL, Wisse LEM, Yassa MA, Zeineh MM. for the Hippocampal Subfields Group (HSG). Quantitative comparison of 21 protocols for labeling hippocampal subfields and parahippocampal subregions in in vivo MRI: Towards a harmonized segmentation protocol (2015) *NeuroImage*. 111: 526-41.
19. Rosenbaum S, Gao FQ, Hunjo K, Raybaud C, **Olsen RK**, Palombo DJ, Levine B, Black S. (2014) Congenital absence of the mammillary bodies: a novel finding in a well-studied case of development amnesia. *Neuropsychologia*. 65: 82-7.

20. **Olsen RK**, Chiew M, Buchsbaum BR, Ryan JD. (2014). The relationship between delay period eye movements and visuospatial memory. *Journal of Vision*. 14: 1-8.
21. **Olsen RK**, Rondina R, Riggs L, Meltzer JA, Ryan JD. (2013) Hippocampal and neocortical oscillatory contributions to visuospatial binding and comparison. *Journal of Experimental Psychology: General*. 142: 1335-45.
22. **Olsen RK**, Palombo DJ, Rabin JS, Levine, B, Ryan JD, Rosenbaum, RS. (2013) Volumetric analysis of medial temporal lobe subregions in developmental amnesia using high-resolution magnetic resonance imaging. *Hippocampus*. 23: 855–860.
23. Palombo DJ, Amaral, RC, **Olsen RK**, Müller DJ, Todd RM, Anderson AK, Levine B. (2013) KIBRA polymorphism is associated with individual differences in hippocampal subregions: Evidence from anatomical segmentation using high resolution MRI. *The Journal of Neuroscience*. 33: 13088-13093.
24. **Olsen RK**, Moses SN, Riggs L, Ryan JD. (2012). The hippocampus supports multiple cognitive processes through relational binding and comparison. *Frontiers in Human Neuroscience*. 146: 1-13.
25. Rose NS, **Olsen RK**, Craik FIM, Rosenbaum RS. (2012). Working memory and amnesia: The role of stimulus novelty. *Neuropsychologia*. 50: 11-18.
26. Chen, J, **Olsen, RK**, Preston, AR, Glover, GH, Wagner, AD (2011). Associative retrieval processes in the human medial temporal lobe: Hippocampal retrieval success and CA1 mismatch detection *Learning and Memory*, 18: 523-528.
27. **Olsen, RK**, Nichols, EA, Chen, J, Hunt, JF, Glover, GH, Gabrieli, JDE, Wagner, AD (2009). High-resolution fMRI of human medial temporal lobe reveals performance-related sustained and anticipatory activity during delayed-match-to-sample. *The Journal of Neuroscience*, 29: 11880-11890.
28. **Olsen, RK**, Kippenhan, JS, Japee, S, Kohn, P, Mervis, CB, Saad, ZS, Morris, CA, Meyer-Lindenberg, A, Berman, KF (2009). Retinotopically defined primary visual cortex in Williams syndrome. *Brain*, 132: 635-644.
29. Buchsbaum BR, **Olsen RK**, Koch P, Berman KF. (2005) Human dorsal and ventral auditory streams subserve rehearsal-based and echoic processes during verbal working memory. *Neuron*, 48: 687-697.
30. Kippenhan JS, **Olsen RK**, Mervis CB, Morris CA, Kohn P, Meyer-Lindenberg A, Berman KF. (2005) Genetic contributions to human gyrification: sulcal morphometry in Williams syndrome. *The Journal of Neuroscience*, 25: 7840-7846.
31. Meyer-Lindenberg AS, **Olsen RK**, Kohn PD, Brown T, Egan MF, Weinberger DR, Berman KF. (2005) Regionally specific disturbance of dorsolateral prefrontal-hippocampal functional connectivity in schizophrenia. *Archives of General Psychiatry*, 62: 379-386.
32. Buchsbaum BR, **Olsen RK**, Koch PF, Kohn P, Kippenhan JS, Berman KF. (2005) Reading, hearing, and the planum temporale. *Neuroimage*, 24: 444-454.
33. Gerton BK, Brown TT, Meyer-Lindenberg A, Kohn P, Holt JL, **Olsen RK**, Berman KF. (2004) Shared and distinct neurophysiological components of the digits forward and backward tasks as revealed by functional neuroimaging. *Neuropsychologia*, 42: 1781-1787.
34. Meyer-Lindenberg A, Kohn P, Mervis CB, Kippenhan JS, **Olsen RK**, Morris CA, Berman KF. (2004) Neural basis of genetically determined visuospatial construction deficit in Williams syndrome. *Neuron*, 43: 623-631.

35. Eyer LT, **Olsen RK**, Jeste DV, Brown GG. (2004) Abnormal brain response of chronic schizophrenia patients despite normal performance during a visual vigilance task. *Psychiatry Research: Neuroimaging*, 130: 245-257.
36. Kindermann SS, Brown GG, Zorrilla LE, **Olsen RK**, Jeste DV. (2004) Spatial working memory among middle-aged and older patients with schizophrenia and volunteers using fMRI. *Schizophrenia Research*, 68: 203-216.

Manuscripts in preparation

1. **Olsen RK**, Buchsbaum BR, McQuiggan D, Ryan JD. (revision requested). Differential neural contributions to viewing changes across repetitions.
2. Wisse L, Chetelat G, Daugherty A, de Flores R, La Joie R, Mueller SG, Shinohara RT, Stark CEL, Wang L, Yushkevich PA, **Olsen RK***, Carr VA*. (revision requested). Best practices for hippocampal subfields research using structural MRI.
* equal contribution
3. St. Laurent M, Rosenbaum RS, **Olsen RK**, Buchsbaum BR. (submitted) Representation of viewed and recalled film clips in patterns of brain activity in a person with developmental amnesia.

Book chapters

1. **Olsen RK**. (submitted). Publishing your research. In. L. Flores & J. Olcott (Eds.), *The Academic Handbook*, 4th edition.

Online writing and media coverage

1. **Olsen RK**. (2018). Can the healthy brain offer clues to curing Alzheimer's? Retrieved from <https://theconversation.com/can-the-healthy-brain-offer-clues-to-curing-alzheimers-92732>
2. Dementia-related brain changes observed before memory or thinking problems are noticeable. (2017). Retrieved from <https://www.sciencedaily.com/releases/2017/05/170512140757.htm>
3. "Older and younger adults surf different brain waves." (2016). Retrieved from <https://www.sciencedaily.com/releases/2016/02/160208135447.htm>
4. "You use different brainwaves as you age." (2016). Retrieved from <https://www.iflscience.com/brain/older-and-younger-adults-use-different-brainwaves/>

Presentations as a Guest Speaker

Invited presentations

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| May 2019 | Your eye (movements) are a window to your brain. Oral presentation at the Krembil Neuroimaging Rounds, Toronto Western Hospital, Toronto, ON, Canada. |
| March 2019 | Structural imaging biomarkers of dementia: challenges and proposed solutions. Oral presentation at the 2019 Rotman Research Institute conference, "Aging and Brain Health: Prevention and Early Detection of Dementia. Toronto, ON, Canada. |
| June 2018 | Under what conditions does the hippocampus contribute to the eye movement repetition effect? Oral presentation at the 2018 meeting of the International Society for |

- Behavioural Neuroscience, Anchorage, AK, USA.
- April 2018 Non-invasive markers of early cognitive decline. Oral presentation and Symposium Chair at the UC Irvine 2018 International Conference on Learning and Memory (Symposium title: "New perspectives on episodic memory decline - from aging to neurodegeneration"). Huntington Beach, CA, USA.
- April 2018 Harmonization of hippocampal subfield segmentation. Oral presentation at the Joint Programme on Neurodegenerative Disease Working Group conference. Stockholm, Sweden.
- November 2017 Structural imaging biomarkers of neurodegeneration: challenges and proposed solutions. Oral presentation at the National Institutes of Health, Bethesda, MD, USA.
- November 2017 Harmonization of hippocampal subfield segmentation, Oral presentation at the "BigBrain Workshop: From open data to novel applications" at the Montreal Neurological Institute, QB, Canada.
- September 2017 My journey as a female scientist. Oral presentation for the University of Toronto chapter Scientista Foundation. Toronto, ON, Canada.
- March 2017 Medial temporal lobe measurements and cognitive decline. Oral presentation at the "Topological Methods in Brain Network Analysis" workshop. Banff International Research Station for Mathematical Innovation and Discovery. Banff, AB, Canada.
- November 2016 Volume reductions in the CA1 hippocampal subfield, perirhinal and anterolateral entorhinal cortices are associated with preclinical cognitive decline: implications for dementia screening. Oral presentation at the 46th annual Society for Neuroscience Meeting, San Diego, CA, USA.
- July 2016 How to form a research question. Oral presentation for visiting students from the Peking University Medical College, Baycrest, Toronto, ON, Canada.
- April 2016 A harmonized protocol for hippocampal subfield segmentation: Motivation, working plan, and opportunities for advancement. Oral presentation at the Montreal Neurological Institute, QB, Canada.
- November 2015 Medial temporal lobe neuroanatomy and cortical segmentation. Oral presentation at the MRI Users meeting, Rotman Research Institute, Baycrest, Toronto, ON, Canada.
- November 2015 The representational nature of item memories. Oral presentation at the Ebbinghaus Seminar Series, University of Toronto, Toronto, ON, Canada.
- October 2015 Eye movement repetition effects do not require the hippocampus or explicit recognition. Oral presentation at 45th annual Society for Neuroscience meeting, Chicago, IL, USA.
- May 2015 Eye movement repetition effects do not require the hippocampus or explicit recognition. Oral presentation at the Toronto Western Research Imaging Rounds, Toronto, ON, USA.
- September 2014 Relational binding across space and time. Oral presentation in honour of receiving the Cermak travel award at the annual meeting of the Memory Disorders Research Society, Austin, TX, USA.
- August 2014 The representational nature of item memories: evidence from eye movements and functional neuroimaging. Oral presentation at the Rissman Memory Laboratory at University of California, Los Angeles, USA.
- February 2014 The role of the hippocampus in binding and comparison. Oral presentation at the Toronto Western Research Imaging Rounds, Toronto, ON, Canada.
- January 2013 Cognitive Neuroscience of Memory. Oral presentation at OCAD University, collaboration with Digital Illustration and Graphic Media students, Toronto, ON, Canada.

- November 2012 High-resolution structural and functional imaging of the medial temporal lobe. Oral presentation at the Mabott Laboratory, Neurosciences and Mental Health Research Division, Hospital for Sick Children, Toronto, ON, Canada.
- October 2012 Recognition memory for single items is impaired in hippocampal amnesia when faces are studied from multiple viewpoints. Oral presentation at the 42nd annual Society for Neuroscience Meeting, New Orleans, LA, USA.
- September 2012 Methods for studying learning and plasticity. Guest lecture for undergraduate course, Learning and Memory, University of Toronto, Toronto, ON, Canada.
- June 2012 Eye movements and memory. Oral presentation at the Stanford Memory Laboratory, Stanford, CA, USA.
- October 2009 The influence of study-test perceptual similarity on recognition memory: a high-resolution fMRI study. Oral Presentation at the 39th annual Society for Neuroscience Meeting, Chicago, IL, USA.
- November 2007 High Resolution fMRI of the medial temporal lobe during delayed-match-to-sample. Oral Presentation at the 37th annual Society for Neuroscience Meeting, San Diego, CA, USA.
- September 2003 Visuoconstructive deficit in Williams syndrome: Functional neuroimaging of genetically determined cognitive dysfunction. Oral presentation at the 7th Annual NIMH Scientific Retreat, Gettysburg, PA, USA.

Non-invited presentations

- June 2019 Can older adults use covert attention to protect their memory from distraction? Oral presentation at the 2019 meeting of the International Society for Behavioural Neuroscience, Taormina, Italy.
- September 2018 Investigating the role of thalamic nuclei during memory encoding and retrieval. Oral presentation at the annual meeting of the Memory Disorders Research Society Annual Meeting, Toronto, ON, Canada.
- November 2017 Update on harmonization efforts of the Hippocampal Subfield Working Group: Progress on boundary definitions within the hippocampal head. Oral presentation at the "Hippocampal Subfield Segmentation Summit," Washington, DC, USA.
- September 2016 Medial temporal lobe subregion volume reductions are associated with preclinical cognitive decline. Oral presentation at the annual meeting of the Memory Disorders Research Society Annual Meeting, Princeton, NJ, USA.
- May 2015 Medial temporal lobe contributions to eye movement repetition effects. Oral presentation at the 1st annual Toronto Area Memory Group, Toronto, ON, Canada.
- February 2014 Exploring the relationship between eye movement and neural repetition effects. Oral presentation at Rotman Research Rounds, Toronto, ON, Canada.
- September 2013 The role of the hippocampus in binding and comparison. Oral presentation at Rotman Research Rounds. Toronto, ON, Canada.
- February 2012 Eye movements during the maintenance of spatial information. Oral presentation at the Ebbinghaus Empire seminar at the University of Toronto, Toronto, ON, Canada.
- January 2012 An investigation of face repetition using simultaneous eye-tracking and fMRI. fMRI Rounds at Rotman Research Institute, Toronto, ON, Canada.
- March 2010 High resolution fMRI of the medial temporal lobe during recognition memory. Oral presentation at Rotman Research Rounds. Toronto, ON, Canada.

- November 2008 The influence of study-test perceptual similarity on recognition memory: behavioral and neural correlates. Oral presentation at the Friday Cognitive Seminar at Stanford University, Stanford, CA, USA.
- August 2007 High Resolution fMRI of the medial temporal lobe during delayed-match-to-sample. Oral presentation at the 4th annual Bay Area Memory Meeting, Berkeley, CA, USA.
- October 2007 High Resolution fMRI of the medial temporal lobe during delayed-match-to-sample. Oral presentation at the Friday Cognitive Seminar at Stanford University, Stanford, CA, USA.
- April 2005 Perceptual similarity and familiarity in recognition memory. Oral presentation at the Friday Cognitive Seminar at Stanford University, Stanford, CA, USA.

Published abstracts (selected)

1. Gervais, N, Almey A, Duchesne A, Brown A, Baker-Sullivan E, Wong A, Gravelins L, Reuben R, Grady C, Olsen R, Einstein G. Menopause reduces hippocampal volume and hippocampal-dependent memory in middle-aged women: preliminary findings. Program No. 515.04. 2018 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience, 2018. Online.
2. Snytte J, Elshiekh A, Olsen RK, Manning L, Rajah MN. Volume of posterior hippocampus is positively related to object-location associative memory in healthy adults. Program No. 693.08. 2018 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience, 2018. Online.
3. Carr V, La Joie R, Olsen R, Wisse L, Amunts K, Augustinack A, Bakker A, Bender A, Berron D, Ding S-L, Burggren A, de Flores R, Chakravarty M, Ekstrom A, Kanel P, Kedo O, Insausti R, Malykhin N, Mueller S, Ofen N, Pluta J, Palobmo D, Schoemaker D, Stark C, Steve T, Wang L, Yassa M, Yu Q, Yushkevich P Daugherty A. Preliminary results of the Hippocampal Subfields Group harmonized protocol for segmenting human hippocampal subfields on 3T MRI. Program No. 693.25. 2018 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience, 2018. Online.
4. Geier KT, Olsen RK, 2018. Hippocampal-thalamic contributions to associative memory Presented at the 25th Annual Meeting of the Cognitive Neuroscience Society, Boston, MA.
5. Robin J, Buchsbaum BR, Olsen RK, 2018. Neural correlates of eye movements during naturalistic viewing. Presented at the 25th Annual Meeting of the Cognitive Neuroscience Society, Boston, MA.
6. Olsen RK, Daugherty A, La Joie R, Wisse L, Amaral R, Berron D, de Flores R, Ekstrom A, Kanel P, Malykhin N, Mueller S, Pluta J, Stark C, Steve T, Wang L, Yassa M, Yushkevich P, Carr V. 2018. A harmonized protocol for in-vivo human hippocampal subfield segmentation: initial results of the 3 Tesla protocol. International Conference on Learning and Memory, Irvine, CA.
7. Robin J, Olsen RK. 2018. The role of scenes in associative memory and inference. International Conference on Learning and Memory, Irvine, CA.
8. Yeung L-K, Olsen RK, Bild-Enkin HEP, Hong B, Mihajlovic V, D'Angelo MC, Kacollja A, Mcquiggan D, Keshabyan A, Ryan JD, Barense MD. Anterolateral entorhinal cortex volume affects both intra-item and inter-item configural processing. Program No. 338.25. 2017 Neuroscience Meeting Planner. Washington, DC: Society for Neuroscience, 2017. Online.
9. Geier KT, Lung C, Olsen RK. 2017. Extra-hippocampal contributions to associative memory retrieval. 11th Annual Canadian Neuroscience Meeting. Montreal, ON.

10. Olsen RK, Yeung L-K, Noly-Gandon A, D'Angelo M, Kacollja A, Smith VS, Ryan JD, Barense MD. Volume reductions in the CA1 hippocampal subfield, perirhinal and anterolateral entorhinal cortices are associated with preclinical cognitive decline: implications for dementia screening. Program No. 017.09. 2016 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience, 2016. Online.
11. Olsen RK, Sebanayagam V, Buchsbaum BR, Lee Y, Rosenbaum RS, Grady CL, Moscovitch M, Ryan JD, Eye movement repetition effects do not require the hippocampus or explicit recognition. Program No. 750.02. 2015 Neuroscience Meeting Planner. Chicago, IL: Society for Neuroscience, 2015. Online.
12. Olsen RK, Buchsbaum BR, McQuiggan D, Ryan JD. 2014. The relationship between neural and eye movement repetition effects. Presented at the 21st Annual Meeting of the Cognitive Neuroscience Society, Boston, MA.
13. Olsen RK, Palombo DJ, Levine B, Ryan JD, Rosenbaum RS. 2013. Volumetric analysis of MTL subregions in developmental amnesia using high-resolution MRI. Presented at the 20th Annual Meeting of the Cognitive Neuroscience Society, San Francisco, CA.
14. Olsen RK, Rosenbaum RS, Ryan JD. Recognition memory for single items is impaired in hippocampal amnesia when faces are studied from multiple viewpoints. Program No. 18.05. 2012. Neuroscience Meeting Planner. New Orleans, LA: Society for Neuroscience, 2012. Online.
15. Olsen RK, Lee Y, Kube J, Smith C, Grady CL, Moscovitch M, Ryan JD. 2012. An investigation of eye-movement fixation patterns to repeated and novel faces in individuals with developmental prosopagnosia. Presented at the 19th Annual Meeting of the Cognitive Neuroscience Society. Chicago, Illinois.
16. Olsen RK, Lee Y, Grady CL, Moscovitch M, Ryan JD. 2011. Repetition-induced changes in face viewing are not affected by changes of face viewpoint across repetitions. Presented at the 18th Annual Meeting of the Cognitive Neuroscience Society. San Francisco, CA.
17. Olsen RK, Wilson JK, Davidenko N, Drucker J, Wagner AD Study-test visual similarity affects recognition memory and medial temporal lobe activity. 2010. Presented at the 16th Annual Meeting of the Organization for Human Brain Mapping. Barcelona, Spain.
18. Olsen RK, Wilson JK, Davidenko N, Drucker J, Wagner AD. The influence of study-test perceptual similarity on recognition memory: behavioral and neural correlates of item memory strength. Program No. 870.3. 2008 Neuroscience Meeting Planner. Washington, DC: Society for Neuroscience, 2008. Online.
19. Olsen, RK, Nichols, EA, Chen, J, Gabrieli, JDE, Wagner, AD. High-resolution fMRI of the medial temporal lobe during delayed-match-to-sample. Program No. 773.1. 2007 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience, 2007. Online.
20. Chen, J, Olsen, RK, Preston, AR, Wagner, AD. Associative retrieval and mismatch signals in the CA fields of human hippocampus. Program No. 203.8. 2007 Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience, 2007. Online.
21. Olsen, RK, Gonsalves, BD, Preston, AR, Curran, T, Norman, KA, Wagner, AD. 2005. The effects of perceptual similarity on item recognition and repetition suppression in the medial temporal lobe. Program No. 769.22. 2005 Neuroscience Meeting Planner. Washington, DC: Society for Neuroscience, 2005. Online.
22. Olsen, RK, Kippenhan, JS, Japee, S, Meyer-Lindenberg, A, Kohn, PD, Mervis, CB, Saad, Z, Morris, CA, Berman, KF. 2003. Retinotopic mapping of early visual areas in Williams syndrome. Presented at the 9th International Conference on Functional Mapping of the Human Brain. NeuroImage, Vol 19, No. 2, S1.

23. Kippenhan, JS, Olsen, RK, Meyer-Lindenberg, A, Japee, S, Mervis, CB, Morris, CA, Berman, KF. 2003. Spherical registration of cortical gyral and sulcal patterns in Williams syndrome: A cautionary note. *Human Brain Mapping* 2003. Presented at the 9th International Conference on Functional Mapping of the Human Brain. *NeuroImage*, Vol 19, No. 2, S1.
24. Olsen, RK, Kohn, PD, Meyer-Lindenberg, A, Mervis, CB, Pani, JR, Berman, KF. 2002. Correlating BOLD response and behavioral performance during visuospatial construction. Presented at the 8th International Conference on Functional Mapping of the Human Brain, *NeuroImage*, Vol. 16, No. 2.
25. Olsen, RK, Zorrilla, LE, Kindermann, SS, Brown, GG, Jeste, DV. Dysfunctional brain response among chronic schizophrenia patients during a sustained attention task: an fMRI study. *Society for Neuroscience Abstracts*, Vol. 27, Program No. 110.16, 2001.

Teaching Experience

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| Fall 2017 | <i>Instructed a 2-day workshop "Manual Segmentation of the Medial Temporal Lobe", Rotman Research Institute, Baycrest</i>
Explained neuroanatomical landmarks and definitions used to delineate subregions of the medial temporal lobe |
| Summer 2006 | <i>Co-instructed summer course: "Introduction to Cognitive Neuroscience", Stanford University</i>
Partnered in planning and development of course outline; gave four lectures; developed exam questions; managed grades |
| Fall 2006 | <i>Teaching assistant for "Introduction to Perception", Stanford University</i>
Gave two guest lectures; developed exam questions; managed grades; organized field trip to "Exploratorium" in San Francisco, CA |
| Winter 2006 | <i>Head teaching assistant for "Introduction to Statistical Methods: Precalculus", Stanford University</i> |
| Fall 2007 | Supervised 8 teaching assistants; organized grading for over 300 students; provided exam accommodations for students with disabilities; tutored struggling students; coordinated makeup exams |
| Spring 2007 | <i>Teaching assistant for "Introduction to Learning and Memory", Stanford University</i>
Gave two guest lectures; developed exam questions; managed grades |

Academic Training and Mentoring

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| 2006 - 2008 | Co-supervised two undergraduate students enrolled at Stanford University. One student is a co-author on a published manuscript and is currently enrolled in an M.D.-Ph.D. program at University of Wisconsin, Madison. Another student is a co-author on a manuscript currently in preparation and has recently completed his Ph.D. at Emory University |
| 2009 - 2015 | Co-supervised two undergraduate students enrolled at York University, six undergraduates enrolled at University of Toronto, and one visiting student enrolled at the Technische Universität Dresden, Germany, and four graduate students at the University of Toronto. Among these students, five are currently enrolled in graduate school programs at McGill University, Dalla Lana School of Public Health, Johns |

Hopkins Bloomberg School of Public Health, York University, Vanderbilt University, and the Max Planck Institute for Human Cognitive and Brain Sciences in Leipzig, Germany

2015 - current Supervised 13 research assistants and six summer students. Three former research assistants are now enrolled in graduate school and one is enrolled in medical school at the University of Toronto.

Academic Service and Outreach

2011 - 2012 Organizer of the Rotman Research Rounds for the 2011-2012 academic year

2011 Organizer of a medial temporal lobe neuroanatomy workshop for the Toronto research community

2013 Organizer of a research trainee workshop titled, "High-quality figures for effectively communicating neuroimaging results"

2013 - present Co-leader of an international initiative to form a harmonized high-resolution segmentation protocol for the human medial temporal lobe (<http://www.hippocampalsubfields.com/>)

2014 Participant in scientific outreach at the University of Toronto's Annual Science Rendezvous

2016 - present Member of the Gender and Diversity Task Force for the Organization for Human Brain Mapping, helped establish the Gender and Diversity Standards statement

2016-2017 Organizer of the 2017 Annual Rotman Research Institute conference, "Neural Dynamics and Brain Health"

2016 - present Mentored for The Scientista Foundation

2018 Mentored high school students at William Lyon Mackenzie Collegiate Institute in preparation for Exploravision, an international scientific innovation competition.

2018 Judge of the final research presentations at the NeuroBRITE 1.0 conference. NeuroBRITE is an NSERC-funded STEM outreach initiative for high school students and their science teachers.

2018 – present Scientific Officer in the Centre for Aging and Brain Health Innovation

Academic Memberships

2001-present Society for Neuroscience

2002-present Organization for Human Brain Mapping

2005-present Cognitive Neuroscience Society

2016-present Memory Disorders Research Society (*invitation only*)

2018-present International Society for Behavioural Neuroscience (*invitation only*)

Ad Hoc Journal Reviewer

Alzheimer's & Dementia
Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring
Brain Research
Cognition
Cognitive, Affective, and Behavioral Neuroscience
Cognitive Neuropsychology
Cerebral Cortex
Cortex
eLIFE
European Journal of Neuroscience
Frontiers in Human Neuroscience
Frontiers in Psychology
Journal of Alzheimer's Disease
Journal of Clinical and Experimental Neuropsychology
Journal of Applied Research in Memory and Cognition
Journal of Cognitive Neuroscience
Journal of Gerontology: Psychological Sciences
Journal of Neuroscience
Journal of the International Neuropsychological Society
Journal of Vision
Hippocampus
Human Brain Mapping
Memory
Network Neuroscience
NeuroImage
Neuron
Neurobiology of Aging
Neuropsychologia
New England Journal of Medicine
Psicologica
Psychiatry Research: Neuroimaging
Science Advances

Scientific grant reviewer

Israel Science Foundation
CIHR Institute of Aging Travel Awards
Alzheimer Society of Canada